

UT-6

HEBER LIGHT AND POWER COMPANY, 1908-09
E. side of US 40/189, 4 mi. N. of Heber City
Wasatch County
Utah

HAER,
UTAH,
26-HEBER,
7

Photographs and
Written and Historical data

Historic American Engineering Record
Heritage Conservation and Recreation Service
Department of Interior
Washington, DC 20243

Heber Light and Power Company
HAER UT- 6
(cover)

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Historic American Engineering Record

Heber Light and Power Company

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Location: E. side of US 40/189, 4 mi. N. of Heber City

Date: 1908-1909

Owner: Heber Power and Light Company

Condition: Abandoned

Significance: Representative example of local power station engineering

Historian: T. Allan Comp, PhD, 1973

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THE HEBER LIGHT AND POWER COMPANY

The Heber Light and Power Company is a representative example of the local power station about 1910. Built too late to serve as a pioneer and too small to advance electrical engineering, the Heber plant functioned primarily as an agent of social advancement, bringing the benefits of electricity to the Heber City area. Electrical generating plants operated in Utah as early as 1890 and by 1900 four major installations (Big Cottonwood, Pioneer, Telluride, Jordan Narrows) demonstrated the economic and technological feasibility of electric power generation. After the turn of the twentieth century many of the towns in Utah moved to acquire their own source of electrical power and on September 20, 1908, the Heber Commercial Club proposed to the City Council a \$50,000 generating station to be constructed just north of the city. The nearby towns of Midway and Charleston were asked to share in the venture and they agreed, Midway taking one-quarter interest and Charleston one-eighth. An election asking voters to approve a \$32,000 bond issue passed by a 112 to eight margin.

The Heber Light and Power Company, as it was officially incorporated, appointed George A. Wootton as

General Supervisor. Construction began late in 1908, and by March of 1909 the builders were ready for the electrical equipment. A Mr. Lund of Salt Lake City installed the equipment and a Mr. Cliff supervised wiring installations in homes and offices.

Water to drive the turbines in the new power house came from the Provo River. The company built a dam of loose rock and logs 100 feet long and two feet high that fed water through two wooden headgates and into a canal owned by the Timpanogos Irrigation Company. The distance from the dam to the power house was 10,475 feet: the canal had a capacity of 250 second-feet and a grade of five feet to the mile. Two steel penstocks 140 feet long and twenty inches in diameter carried the water from the canal to the power house turbines. The "head," or vertical distance the water coming to the plant had to fall, was ninety-five feet when the plant was in operation. An open tailrace drained water from the turbines back to the river.

The small power house building was constructed of rubble masonry and held two 800 h.p., thirty-inch Trump turbines* direct-connected to two 300 kilowatt, 4000 volt

* A July, 1971 HAER interview with plant operator Dusty Carlile attributes the turbines to S. Morgan Smith Company of York, Pennsylvania. The Trump designation is from R.R. Woolley.

three-phase General Electric generators. Two smaller thirty-five h.p. Trump turbines direct-connected to two twenty-one kilowatt, 125 volt General Electric generators were used as exciters. Total cost of construction and equipment was \$66,789.66.

Alternating current generated at 4000 volts carried over the first twelve miles of transmission lines in December of 1909. The plant was apparently a marginal success because eight years later the rather expensive turbine impellers had to be replaced and the company decided instead to shut the Heber plant down and utilize other sources of electrical power. Virtually abandoned between 1917 and 1930, it was not until the availability of Federal aid during the Great Depression that the power house received renewed interest. During 1931 and 1932 new impellers were installed in the turbines, the generators were rewound, and a wood-stave pipeline four and one-half feet in diameter and two miles long replaced the old canal. The station reopened in 1932 and the wooded pipe worked well enough for a few years, but winter ice and rot soon created so much leakage that the company employed one man full-time to patch the pipe. The plant shut down again in 1972 and its future is unknown.

Researchers interested in electrical developments in Utah that attracted national attention should consult the

HAER report on the Olmsted Power Station. The Heber Light and Power Company, never a major installation and lacking even a consistent or continuous history of development, serves only as one of hundreds of small generating stations that demonstrate the popularity of electricity and the consequent proliferation of local electric generating stations during the first two decades of the twentieth century.

T. Allan Comp
Historian: HAER
January, 1973

BIBLIOGRAPHY

Note: The localized importance of the Heber plant claimed little or no attention in either national or state engineering journals. While earlier and larger plants often garnered national acclaim (see HAER report on the Olmsted Power Station), small generating stations like Heber went quietly about the work of electrifying the West. For estimates of and reactions to the social impact of electrification the researcher should check Mortimer and the local newspapers.

Agreement. "A Contract Between the Municipalities of Heber City, Midway, and Charleston Apportioning Ownership and Responsibility for the Heber Light and Power Company." January 30, 1935.

This contract formalizes the 1909 agreement between the three towns and divides responsibility for the costs of reconstruction. A copy is included in the HAER file.

Historic American Engineering Record, "Oral Interview with Dusty Carlile, Operator; and Wilson Young, Employee; Heber Light and Power Company." Heber City, Utah: July 29, 1971.

These two brief interviews with the only employees of the Heber plant are included in the HAER file. While both are useful, they can also be incorrect and must, like all oral interviews, be used with caution.

Mortimer, William James. How Beautiful Upon the Mountains. Published by the Daughters of Utah Pioneers, Wasatch County Chapter and the Deseret News Press, 1963.

Many of the county chapters of the DUP sponsored histories that any researcher must consult. While sometimes lacking all the apparatus of professional scholarship (footnotes, bibliography, ect.), they are thorough in their chronological coverage and dependably accurate.

BIBLIOGRAPHY (continued)

Woolley, Ralf R. Water Powers of the Great Salt Lake Basin, United States Geological Survey Water-Supply Paper 517. Washington: Government Printing Office, 1924.

A succinct and thorough source for descriptions and specifications of Utah hydroelectric generating stations as they existed in the early 1920's. Contains one-half page on the Heber Light and Power Company.